

LIST OF CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application.

Claim 1. (Currently amended): A method for breeding transgenic plants with high antiviral property, comprising the following steps of:

- a. checking the frequency of codon usage in a host and determining ~~the rare codons~~ codons with a usage frequency of 0-10% in the host, modifying the codons in a ~~target gene~~ coat protein gene of the Potato Virus X so that some codons in ~~the target~~ said gene are mutated into the rare synonymous codons in the host plant;
- b. constructing a vector containing ~~the target~~ said gene with the codon modifications, to be used for transforming plants;
- c. transforming the plants with the recombinant vector to obtain the regenerative transgenic plants; and
- d. detecting the transformed plants, screening the transgenic plants in which ~~the a~~ a gene silencing occurs in ~~the target~~ said gene, and thereby obtaining the transgenic plants with high antiviral property.

Claim 2. (Previously presented): A method for breeding transgenic plant with high antiviral property of claim 1, characterizing in that: said vectors further comprising a selective marker gene.

Claim 3. (Canceled).

Claim 4. (Previously presented): A method for breeding transgenic plant with high antiviral property of claim 1 or claim 2, characterizing in that: said vector is a prokaryotic expression vector or a eukaryotic expression vector.

Claim 5. (Previously presented): The cell line obtained from the method of claim 1.

Claim 6. (Previously presented): The plant obtained from the method of claim 1.

Claims 7-8. (Canceled).